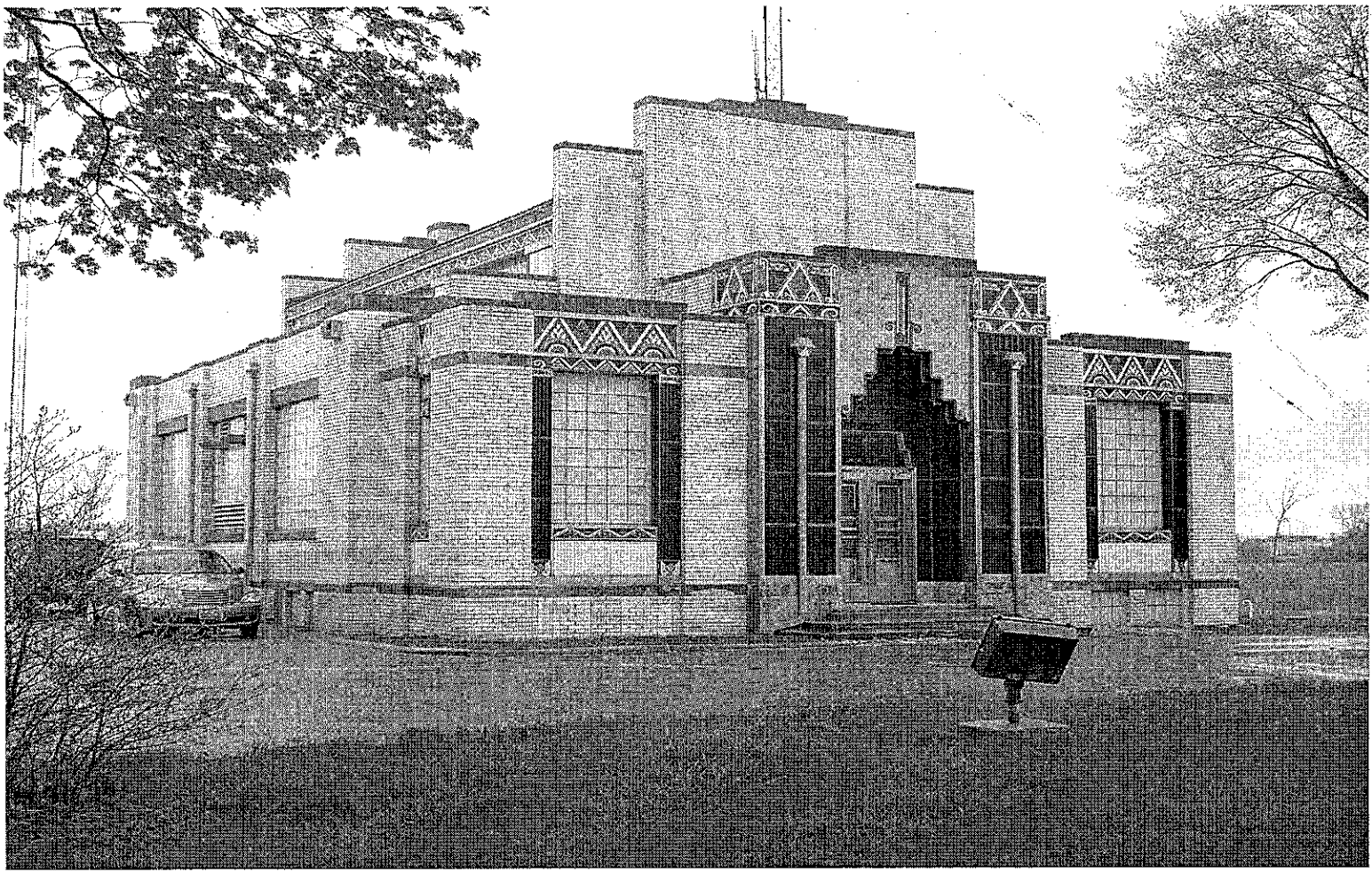

Draft Environmental Assessment
WJR Transmitter Site
Wayne County, Michigan
December 2009

FEMA

U.S. Department of Homeland Security
Department of Homeland Security
500 C Street, SW
Washington, DC 20472

TABLE OF CONTENTS

APPENDIX A – FIGURES

Figure 1 – Topographic Site Vicinity Map
Figure 2 – Site Aerial Diagram
Figure 3 – Site Diagram of Proposed Action
Figure 4 – Flood Plain Map
Figure 5 – Wetlands Map
Figure 6 – Zoning Map
Photographs of Existing Conditions at the WJR Transmitter Site

APPENDIX B – Agencies Correspondence

APPENDIX C – Draft Public Notice and Draft FONSI

APPENDIX D –Draft EA Preparer and Reviewer Resumes

DRAFT ENVIRONMENTAL ASSESSMENT
WJR Transmitter Site
15725 Sibley Road
Riverview, Michigan
Terracon Project No. 20099017
December 4, 2009

1.0 PROJECT AUTHORITY

The Federal Emergency Management Agency (FEMA) has identified several radio transmission sites throughout the United States of America that provide significantly powerful signals which can be used for communication purposes in the event of a national catastrophe. Each site is required by FEMA to have between 30 and 60 days of auxiliary back-up diesel fuel available on the site to power the transmission site in the event of a power outage. This requires that between 6,000 and 12,500 gallons of diesel fuel be located on the property, depending on the requirements of each transmission site. To this end, FEMA has contracted with the Primary Entry Point Administrative Council, Inc. (PEPAC), a 501c Washington, D.C.-based non-profit corporation, to upgrade, maintain and manage the emergency power systems located at the selected transmission sites throughout the U.S.

PEPAC is proposing to remove and close an existing diesel fuel underground storage tank (UST) and ancillary fuel system (collectively referred to as the UST system) and replace with the installation of a new 12,000-gallon diesel UST system at the WJR tower facility located at 15725 Sibley Road, Riverview, Wayne County, Michigan (Proposed Action). In accordance with the National Environmental Policy Act (NEPA), an evaluation of the potential environmental impacts of the proposed action along with alternatives is required. NEPA requires that a federal agency assume the lead role in assuring the NEPA process is completed. For this Draft Environmental Assessment (Draft EA), FEMA will be the lead federal agency as the upgrades to the backup systems will be funded by FEMA.

In accordance with the National Environmental Policy Act of 1969, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Parts1500-1508), and FEMA regulations for NEPA compliance (44 CFR Part 10), FEMA must fully understand and consider the environmental consequences of actions proposed for federal funding. The purpose of this Draft EA is to meet FEMA's responsibilities under NEPA and to determine whether to prepare a Finding of No Significant Impact (FONSI) or a Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) for the proposed project.

1.1 Project Location

The proposed project is located at the existing WJR Transmitter Site at 15725 Sibley Road located within the city limits of Riverview, approximately 18 miles southwest of the City of Detroit. The City of Riverview is located near the western shore of the Detroit River. The

approximate site location (longitude -83.214678 and latitude 42.169623) is presented on a topographic map as Figure 1, and an aerial photograph of the site is provided as Figure 2 included in Appendix A.

1.2 Purpose and Need

The electrical generator and fuel system equipment at the facility are required to provide emergency backup power to the transmitter facility in the event of a power outage to the transmitting equipment. The purpose of the action alternative is to upgrade the quality and capacity of the emergency power supply equipment to the WJR Transmitter site in support of the national catastrophe support network. FEMA has identified several radio transmission sites throughout the United States of America that provide significantly powerful signals which can be used for communication purposes in the event of a national catastrophe. Each site is required by FEMA to have between 30 and 60 days of auxiliary back-up diesel fuel available on the site to power the transmission site in the event of a power outage. The current emergency backup system provides only 6,000-gallons of diesel fuel to the generator, does not utilize a fuel filtration system, and is lacking in secondary containment in the generator room. The upgrading activities are needed to ensure the site meets the 30-60 day fuel requirement as well as to minimize the potential impact to the human and natural environment from a potential petroleum product release. The Proposed Action is not being considered in response to a known UST leak or an historic release of hazardous materials from the site systems.

In accordance with federal laws and FEMA regulations, the EA process for a proposed federal action must include an evaluation of alternatives and a discussion of the potential environmental impacts. This EA was prepared in accordance with FEMA's regulations as required under NEPA. As part of this NEPA review, the requirements of other environmental laws and executive orders are addressed.

1.3 Existing Facility

The existing WJR emergency generator system includes one double-walled fiberglass 6,000-gallon UST that employs an active brine-filled interstitial and associated electronic leak detection monitoring system and is located approximately 45 feet south of the generator room. A Cummins/Onan 300 kW emergency generator is located in the generator room of the transmitter building. The UST provides diesel fuel to supply a single walled, 10-gallon day tank located in the generator room. The fuel system is installed with a pump at the day tank to transfer fuel from the UST to the day tank. No active fuel filtration system is present at the site. Current fuel piping at the site consists of a flexible rubber hose system within a secondary PVC containment piping below ground, and screwed carbon steel pipe construction and flexible hoses aboveground. The generator room floor is sealed and employs a low wall containment dyke for secondary containment purposes. No monitoring of the containment area is present.

2.0 ALTERNATIVE ANALYSIS

According to NEPA protocol, PEPAC and FEMA are required to provide alternatives to the proposed project. FEMA has selected the WJR Transmitter Site based on the prime location and signal strength that this transmitter site provides, so other transmitter sites in the area were not considered as action alternatives in this EA. Alternative locations were considered but dismissed as the new UST and new fuel system equipment must be located in the same area of the existing generator building for logistical purposes. An aboveground storage tank (AST) was considered but dismissed due to security concerns. No new land will be required to be added to the WJR property. However, a No Action Alternative was considered as part of this Draft EA.

2.1 Proposed Action

Under the Proposed Action, PEPAC will replace the existing 6,000-gallon UST with a new Xerxes 12,000-gallon, double-walled fiberglass reinforced plastic UST with automatic tank monitoring and leak protection equipment; the addition of a RCI fuel filtration system with leak detection; 50-gallon double-walled day tank, Incon fuel inventory monitoring system for the UST and improved secondary containment for the generator room floor area. The present generator is not recommended for replacement.

The new UST will be located approximately 10 feet to the southeast of the existing UST as shown on Figure 3. While the existing equipment is being removed and replaced, a temporary 500-gallon diesel fuel aboveground storage tank (AST) will be connected to the onsite generator and will be operational in the event of an emergency system activation.

The approximate site location is longitude -83.214678 and latitude 42.169623. The area of disturbance for the removal and replacement of the UST will be approximately 9 feet wide, 40 feet long and 12 feet deep and is located to the south of the transmitter building. The generator room is approximately 10 feet by 24 feet. Construction was completed on the transmitter building in 1934.

The Proposed Action will also require that the existing UST, day tank, fuel filtration system, and piping be decommissioned, removed and closed in accordance with federal, state, and local requirements.

2.2 No Action Alternative

Under the No Action Alternative, the existing UST and generator equipment would not be upgraded. The increased capacity of the new UST under the Proposed Action (from 6,000 to 12,000 gallons of diesel) for extended broadcast use during a national catastrophe would not be available. Risks to human health and safety associated with potential release associated with the existing UST and fuel system because of aging and outdated equipment would not be mitigated.

3.0 AFFECTED ENVIRONMENT AND CONSEQUENCES

3.1 Physical Environment

3.1.1 Geology, Seismicity, and Soils

The location of the site is the northeastern quarter of Section 11, Township 4 South, and Range 10 East. The site is located directly south of Sibley Road in the City of Riverview, Wayne County, Michigan. The property is approximately 185 feet above sea level in a generally flat area of the state, and is located approximately 2.5 miles west of the Detroit River. The proposed project work is located approximately 18 miles southwest of the downtown area of Detroit, Michigan.

According to the Michigan Department of Environmental Quality, the WJR transmitter site consists of Paleozoic and Mesozoic sedimentary rocks of Cambrian to Jurassic age.

According to a seismic probability map prepared by the U.S. Coast and Geodetic Survey, Michigan lies in a region of low risk for earthquake occurrence. In February 1976 several tremors of low intensity were felt in the Detroit area, however the epicenter was unofficially located in northern Ohio. Only 34 earthquakes with epicenters actually located in Michigan have been recorded from 1872 to 1967. The largest earthquake recorded in Michigan occurred in 1906 in the Keweenaw area located on the Upper Peninsula. It registered 8 on the Intensity Modified Mercalli Scale. (*Seismic Disturbances in Michigan* by D. Michael Bricker, 1977)

A review of the "Soil Survey of Wayne County, Michigan" (SCS 2006) indicates the site is comprised of the Blount loam on 0 to 4 percent slopes and Hoytville silty clay loam on 0 to 2 percent slopes. Both soil types are poorly drained with moderate available water capacity. The depth to water table is reportedly 12 to 36 inches below ground surface (bgs) for the Blount loam and considerably less for the Hoytville silty clay loam at approximately 0 inches.

Discussion of Alternatives

Proposed Action

Short term impacts to site soils would occur during the construction phase of the project. The Proposed Action requires that the area for the installation of the new UST be excavated to approximately 12 feet bgs. In the event the excavated soil is observed to be contaminated (petroleum odor and/or staining), the soils will undergo waste characterization (sampled for laboratory analysis) before removal to an approved disposal site certified to accept petroleum contaminated soils. Replacement material will be used if necessary to backfill the new UST. Short term impacts would be mitigated by Best management Practices (BMPs) which would include the stockpiling and covering the excavated soil on-site to help prevent fugitive dust and/or soil erosion. Upon completion of the construction activities, the disturbed area would be

revegetated to prevent soil erosion or covered with a concrete pad which would provide protection for the UST as well as an area to mount fuel ports, sumps, sensors, and other leak detection safeguards.

The Farmland Protection Policy Act (FPPA) (P.L. 97-98, Sec. 1539-1549; U.S.C. 4201, et seq.), which stated that federal agencies must "minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses," was considered in this EA. The WJR transmitter site property was developed in the 1930s and is now in an urban area. According to the Natural Resource Conservation Service field office for Area 4, the site is not classified as prime or unique soils. The Proposed Action will not entail the conversion of farmland on the site.

No Action Alternatives

Under the No Action Alternative, geology, seismicity and soils at the site would not be affected. The short-term impacts to the site soil during the construction phase of the Proposed Action would be avoided.

3.1.2 Water Resources and Water Quality

During the site visit on April 30, 2009, no surface waters were observed in the proposed project area, or on the parent tract WJR transmitter site. Stormwater runoff on the site is estimated to flow east towards the Detroit River, located approximately 2.5 miles from the site.

According to the 2007 Drinking Water Report, the City of Riverview provides drinking water to its residents from the Detroit River via the Southwest Water Treatment Plant. The actual intake lies east of the international boundary line between Canada and the U.S. The sampling activities of the water sources reportedly did not observe contaminants at concentrations that violated federal drinking water standards.

Discussion of Alternatives

Proposed Action

The Proposed Action would provide a net benefit to the site watershed by upgrading fuel storage and piping equipment on the site. The current UST and auxiliary piping equipment has the potential to leak or release petroleum contaminants into the subsurface soils and groundwater. Installing a new UST system with automatic leak detection equipment would reduce the potential for contaminant leakage into the environment. The Proposed Action will not require the use of groundwater to operate or complete. Because the construction activities for the Proposed Action would be less than one acre of disturbed land, the Proposed Action would not require a National Pollution Discharge Elimination System permit.

No Action Alternative

Under the No Action Alternative, potential of impacts to subsurface soils and groundwater could occur from the leakage or release from the outdated and aging UST and auxiliary piping equipment. The current underground piping system does not have double-walled construction and leak detection equipment installed, which increases the potential that impacts to the subsurface soils and groundwater could occur.

3.1.3 Flood Plain Management

This project property is not within the 500-year floodplain as indicated in the Flood Insurance Rate Map (FIRM), Community-Panel No. 260240 0005 C for the City of Riverview, Wayne County, Michigan. A copy of the flood plain map for the site (Figure 4) is included in Appendix A.

Discussion of Alternatives

Proposed Action

The Proposed Action will not affect the floodplain designation of the site. The Proposed Action will upgrade the UST system by providing more leak detection safety measures.

No Action Alternative

Under the No Action Alternative, releases from the outdated and aging UST system could impact subsurface soils and groundwater.

3.1.4 Air Quality

The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment; the Clean Air Act established two types of national air quality standards; primary standards set limits to protect public health, including the health of "sensitive" populations such as asthmatics, children, and the elderly; secondary standards set limits to protect public welfare, including protection against decreased visibility, damage to animals,

crops, vegetation and buildings; current criteria pollutants are: Carbon Monoxide (CO), Nitrogen Dioxide (NO_2), Ozone (O_3), Lead (Pb), Particulate Matter (PM), and Sulfur Dioxide (SO_2).

According to the Michigan Air Quality Summary Report for 2006, Wayne County – which includes the City of Riverview – experienced non-attainment for 8-hour ozone and $PM_{2.5}$ (particulate matter) indicating that unhealthy levels of air pollutants were present. For 2006, the state reached attainment status for CO, NO_2, O_3, Pb, and SO_2.

Discussion of Alternatives

Proposed Action

The Proposed Action will not result in emissions of air pollutants into the atmosphere, except for short term effects during the construction activities and when the national catastrophe support network is activated. Construction equipment that burns petroleum products will be used to excavate and fill the UST pit and piping areas. Emissions from fuel-burning internal combustion engines (e.g. heavy equipment and earth moving machinery) could temporarily increase the levels of some pollutants, including CO, Volatile Organic Compounds, NO_2, O_3, and PM; these increases would be temporary. To reduce the emission of criteria pollutants, fuel-burning equipment running times would be kept to a minimum and only used when necessary. An additional short term effect from the construction activities is the potential for the release of fugitive dust from excavated soil. To reduce the potential temporary impacts to air quality from fugitive dust, construction personnel will water down construction areas when necessary.

Because the Proposed Action will not be a new stationary source of air emissions, construction personnel will not need to obtain an air permit under Title V of the Clean Air Act.

No Action Alternative

Under the No Action Alternative, air quality at the site will not be adversely affected. The short-term impacts to the air from the construction phase of the Proposed Action would be avoided.

3.2 Biological Environment

3.2.1 Terrestrial and Aquatic Environment

The location of the site is the northeastern quarter of Section 11, Township 4 South, and Range 10 East. The site is located directly south of Sibley Road in the City of Riverview, Wayne County, Michigan. The parent tract property is currently used as a radio transmitter site, which includes radio towers and a building. The site of the Proposed Action is located in an area within the WJR transmitter property that is previously disturbed land, and is surrounded by developed residential and commercial land. During the site visit on April 30, 2009, the site was observed to be vegetated with grasses and weeds. No evidence of wetland habitat, streams, ponds or other aquatic environments were identified on the WJR transmitter site during previous site visits.

Discussion of Alternatives

Proposed Action
The Proposed Action would not create a significant effect to the existing terrestrial environment. The UST and ancillary piping equipment will be buried on the site, and the extent of ground disturbance would be minimal due of the limited nature of the project.

No Action Alternative
Under the No Action Alternative, the existing terrestrial environment on the site would not be affected.

3.2.2 Wetlands (Executive Order 11990)

Under the Clean Water Act (40 CFR § 230.3), wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas." Potential wetlands under the jurisdiction of the United States Army Corps of Engineers (ACOE) include waterways, lakes, streams, and natural springs. Executive Order (EO) 11990, Protection of Wetlands, requires federal agencies to take action to minimize the loss of wetlands. The NEPA compliance process requires federal agencies to consider direct and indirect impacts to wetlands, which may result from federally funded actions.

The USFWS National Wetlands Inventory (NWI) online map was reviewed. The review of the USFWS NWI map indicated that wetlands are not identified on the site. The closest wetlands are reportedly located approximately 1.5 miles to the west of the site. A residential development resides between the WJR Transmitter Site and the closest wetland area. A copy of the USFWS NWI map for the site (Figure 5) is included in Appendix A.

As shown on the relevant USGS 7.5-Minute Series Topographic Map, the site is not located adjacent to surface waters. During Terracon's site reconnaissance, there was no evidence of potential wetlands, hydric soils, or hydrophytic vegetation at the site. Furthermore, a review of the relevant soil survey map did not note hydric soils at the site.

Discussion of Alternatives

Proposed Action
The Proposed Action would not create a significant effect to wetlands since there was no evidence of potential wetlands, hydric soils, or hydrophytic vegetation at the site.

No Action Alternative
Under the No Action Alternative, the existing terrestrial environment on the site would not be affected.

3.2.3 Threatened and Endangered Species

In accordance with Section 7 of the Endangered Species Act (ESA) of 1973, the project area was evaluated for the potential occurrences of state and federal listed threatened and endangered species. The ESA requires any federal agency that funds, authorizes or carries out an action to ensure that their action is not likely to jeopardize the continued existence of any endangered or threatened species (including plant species) or result in the destruction or adverse modification of designated critical habitats. Federally listed species for Wayne County include the Indiana bat, Northern riffleshell, Rayed bean mussel and Eastern prairie fringed orchid.

The site of the Proposed Action is located in an area within the WJR transmitter property that is previously disturbed land, and is surrounded by developed residential and commercial land. During the site visit on April 30, 2009, the site was observed to be vegetated with grasses and weeds.

Discussion of Alternatives

Proposed Action
Based on a comparison of T&E species habitats with the existing disturbed lot, the Proposed Action would not appear to create an effect to T&E species. Additionally, the extent of ground disturbance would be minimal because of the limited nature of the project, and T&E species or their habitats would not likely be affected. Terracon and FEMA have issued letters to the U.S. Fish and Wildlife Service (USFWS) and the Michigan Department of Natural Resources – Lansing Office (MDNR) to request concurrence with this conclusion. Copies of the correspondence are included in Appendix B, which includes a list of Wayne County, Michigan's endangered, threatened, and special concern species list.

A MDNR consultation dated October 12, 2009, indicates that the proposed action should have no impact on rare or unique natural features at the proposed location. The United State Fish and Wildlife Service website was reviewed for possible effects to federally listed endangered and threatened species. The following federally listed species are known to occur in Wayne County: Indiana bat, Northern riffleshell, Eastern massasauga, Rayed bean mussel and the Eastern prairie fringed orchid. Based on the site reconnaissance and project activity, the Proposed Action at the WJR Transmitter site will have "no effect" on the listed species, their habitats or proposed or designated critical habitat.

No Action Alternative
Under the No Action Alternative, the existing terrestrial environment on the site would not be affected; however, because the site lacks critical habitat for endangered and/or threatened species, effects to species would not be mitigated by implementing the No Action Alternative.

3.3 Hazardous Materials

The WJR Transmitter Site currently has one existing double-walled fiberglass 6,000-gallon UST located south of the transmitter building, and one existing 300 kW emergency generator located in the generator room of the transmitter building. The existing UST provides diesel fuel to supply a day tank located in the generator room. Current fuel piping at the site consists of a flexible rubber hose system within a secondary PVC containment piping below ground and screwed carbon steel pipe construction and flexible hoses aboveground.

Discussion of Alternatives

Proposed Action
The Proposed Action addresses the need to upgrade the out-of-date and aging petroleum storage equipment at the WJR Transmitter Site, and will include replacement of the UST with a new 12,000-gallon, double-walled fiberglass reinforced plastic UST with automatic tank monitoring and leak detection equipment, and replacement of the ancillary fuel system. These upgrades are needed to minimize the potential of impact to the human and natural environment from potential petroleum product releases from the out-of-date and aging UST system.

The Proposed Action is not being considered in response to a known UST leak, or historic releases of hazardous materials from the site systems. However, excavation activities could expose or otherwise affect subsurface soils and groundwater at the site that have been impacted by petroleum wastes or materials. Any hazardous material releases to the site subsurface soils and/or groundwater discovered during implementation of the Proposed Action shall be assessed and remediated by PEPAC in accordance with applicable local, state, and federal regulations. A confirmed release must be reported to the Waste and Hazardous Material Division (WHMD) within 24 hours. Once reported, the owner/operator will be informed regarding rules for further testing and cleanup activities.

Decommissioning and Removal of Existing UST: The steps that are necessary for closure of a UST include – Owner must submit a notice 30 days prior to closure to DEQ – Storage Tank Unit (STU). STU responds to owner with instructions and forms. Tank must be removed according to the standards already put in the EA. If a release is discovered, the owner/contractor must report release to DEQ – STU within 24 hours. If no release is discovered, the owner must perform a site assessment and submit the site assessment report to the DEQ – STU within 45 days. STU will notify the owner on any remediation activities necessary because of identified releases.

Installation of new UST: An underground storage tank (UST) subject to Part 211, Underground Storage Tank Regulations, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, must be registered by the current owner and have all fees paid to be considered registered with the WHMD. The copies returned by the WHMD will indicate the earliest closure date along with the last date this form is valid. A site assessment shall be conducted during the closure/change-in-service, with results sent to the WHMD. The owner/operator must also submit an amended registration form notifying the WHMD of completion of closure/change-in-service within 30 days after the date of the closure/change-in-service.

The Proposed Action includes modifications in the existing generator room. The generator room was constructed in 1933 with a concrete floor and has cinderblock and brick walls. Secondary containment curbing approximately 6 inches high was installed around the doorway. Cracks were observed in the concrete floor and there is no leak detection system to monitor for a fuel release inside the curbed area. Cracks in the concrete floor observed would allow potential leakage of fuel through the concrete to the underlying subsurface soils and groundwater. One floor drain was observed in the doorway of the generator room but outside the concrete curbing previously described.

The Proposed Action will upgrade and seal the existing curbing, wall joints, floor joints and cracks observed in the concrete floor for the generator room. Leak detection monitor(s) will be installed at key locations in the room to assess the area for a fuel leak and tie into the automatic leak detection monitoring system.

Since the building was constructed before 1978, asbestos-containing materials (ACM) may exist within the building materials. ACM in building materials was banned by the federal government in 1978. Prior to modification of the generator building, the building needs to be assessed if ACM testing and/or abatement will be required to complete the building modifications. If required, the ACM will need to be handled and dispose of in accordance with applicable local, state, and federal regulations.

No Action Alternative

The existing UST system does not have adequate leak detection and equipment installation safeguards. Under the No Action Alternative, the existing UST system would remain at the site, which would continue to pose a threat to the human and natural environment from the risk of a release or leak of hazardous materials to the subsurface soils and groundwater at the site.

3.4 Socioeconomics

3.4.1 Zoning and Land Use

According to the City of Riverview, Michigan 2008 Zoning Map included in Appendix A, the WJR Transmitter Site is currently zoned PSP (Public/Semi-Public Use District). The northerly and

westerly adjoining properties are reportedly zoned R-1 (Residential) and the easterly and southerly properties are also zone PSP. The site is within the incorporated city limits of Riverview, Michigan. A copy of the zoning map (Figure 6) is included in Appendix A.

Discussion of Alternatives

Proposed Action

Because the Proposed Action involves only the upgrading of existing infrastructure in support of the WJR Transmitter Site's current activities, alteration of the site's zoning status is not anticipated to be necessary. No potential long-term or short-term effects to zoning and land use patterns would be anticipated under the Proposed Action.

No Action Alternative

Under the No Action Alternative, the zoning designation of the site would remain the same.

3.4.2 Visual Resources

The existing UST and underground piping system is not in the view shed of the general human population. The existing transmitter building can be observed from Sibley Road, and potentially from residences to the west and north.

Discussion of Alternatives

Proposed Action

The Proposed Action involves the installation of new UST system in the same area as the existing UST system. The view shed of the surrounding vicinity will not be adversely impacted by the improvement activities proposed by PEPAC.

No Action Alternative

Visual resources in the area would not affected by implementation of the No Action Alternative.

3.4.3 Noise

Noise is defined herein as undesirable sound, is federally regulated by the Noise Control Act of 1972 (NCA); although the NCA gives the EPA authority to prepare guidelines for acceptable ambient noise levels, it only charges those federal agencies that operate noise-producing facilities or equipment to implement noise standards; the EPA's guidelines, and those of many federal agencies, state that outdoor sound level in excess of 55 decibels (dB) are "normally acceptable" for noise-sensitive land uses such as residences, schools and hospitals.

The project area is surrounded to the north and west by residences, which are defined as sensitive receptors to noise. FEMA owns the existing UST system and electrical generator, and to date, has not received complaints from the residential sensitive receptors in the area. The

project area is also bound to the north by Sibley Road, which is a four-lane street that emits traffic noise to the surrounding community on a continual basis.

Discussion of Alternatives

Proposed Action

During the construction activities of removing the existing UST system and the installation of the new UST and new equipment, the most elevated noise levels would be from the construction equipment. The use of the construction equipment for the new installations will be restricted to normal daytime hours to help mitigate negative noise effects to the residences in the near vicinity. After the new equipment and building addition installation is completed, noise would be limited to delivery trucks filling the UST with diesel fuel periodically, and the engine noise from the generator equipment at the site.

No Action Alternative

Current noise levels would not change by implementing the No Action Alternative. The short-term impacts to the ambient noise levels from the construction phase of the Proposed Action would be avoided.

3.4.4 Public Services and Utilities

Electrical and natural gas service is provided by Detroit Edison. The City of Riverview Department of Public Works manages the city's drinking water and wastewater utilities. The Riverview Fire Department services the site, and reportedly covers approximately 4.6 square miles. The fire department responded to 1,700 calls in 2005. The Riverview Police Department is a 24-hour law enforcement agency comprised of 28 officers and two administrative staff members. Henry Ford Wyandotte Hospital in Wyandotte, MI is the nearest hospital to the WJR Transmitter Site, and is located approximately two miles from the site.

Because the existing UST system and the Proposed Action does not increase or decrease the demand on the City of Riverview's public services or utilities, a discussion about potential effects is not warranted. A representative of the Riverview Fire Department is expected to be present during the removal of the existing UST as standard local protocol requires.

Discussion of Alternatives

Proposed Action

The Proposed Action involves the removal and replacement of the UST system in the same location as the existing UST system. No new public services will be required for the Proposed Action.

No Action Alternative

Public utilities in the area would not affected by implementation of the No Action Alternative.

3.4.5 Traffic and Circulation

The WJR Transmitter Site is surrounded by residential streets and roads to the north, east and west. The City of Riverview maintains the residential streets and roads in the vicinity of the site. The residential streets and roads are reportedly two lanes in width, and Sibley is a four-lane road. The only entrance to the WJR Transmitter Site is from Sibley Road. According to the Michigan Department of Transportation's most recent traffic volume map for Riverview, the daily average traffic count for Sibley Road is approximately 15,000 vehicles in the vicinity of the WJR Transmitter Site.

Discussion of Alternatives

Proposed Action

Traffic on Sibley Road would increase slightly during the construction phase of the Proposed Action. The construction activities would be limited to regular working hours. After the Proposed Action was constructed on the site, traffic patterns and volumes would resume to their levels pre-construction.

No Action Alternative

Under the No Action Alternative, the short-term impacts to the traffic patterns and volumes from the construction phase of the Proposed Action would be avoided.

3.4.6 Environmental Justice (Executive Order 12898)

In February 1994, President Clinton issued Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (59 Fed. Reg. 7629, 1994). This order directs Federal agencies to incorporate environmental justice as part of their missions. Federal agencies are specifically directed to identify and, as appropriate, to address disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations.

The U.S. Census Bureau reportedly estimated the population for the City of Riverview to be 13,272 in 2006. The median value of owner occupied homes in 2006 was reportedly $144,300. The estimated median household income in Riverview in 1999 was reportedly $47,623. Wayne County's labor force was reportedly 964,645 (US Census Bureau 1990).

In the 2000 American Community Survey conducted by the U.S. Census Bureau for Riverview, 95.2% of individuals reported being White. The largest minority group, Black or African-American, reportedly accounted for 2.4% of the city population. The overall poverty rate for individuals in Riverview was reportedly 4.7%, compared to 11.3% nationally (U.S. Census Bureau 2000).

Census data are compiled at a variety of levels corresponding to geographic areas. In order of decreasing size, the areas used are states, counties, census tracts, block groups, and blocks.

A block group is a subdivision of a census tract and is the smallest geographic unit for which the Census Bureau tabulates sample data. A block group consists of all the blocks within a census tract with the same beginning number.

Due to the lack of substantial minority populations in the block group data for the vicinity of the subject property, demographic maps were not prepared. In compliance with FEMA's policy implementing EO 12898, Environmental Justice, the socioeconomic conditions of the project vicinity have been reviewed and do not appear to have a disproportionately high or adverse impact on minority or low-income populations.

3.4.7 Safety and Security

USTs and generators have environmental, safety, and health hazards associated with them. The environmental damage caused by a spill of petroleum products creates a safety concern to the human and the natural environment. Petroleum is a highly flammable substance. Explosions and fires at UST sites have occurred in the past. There are several hypothetical accident scenarios for the site including: removal of the existing UST, failure of the new UST, failure of the fuel piping, and improper unloading operations for transfer of diesel fuel between the tank truck and the UST.

Failure of a UST is the least likely of the three scenarios to occur and not expected to create an explosion or fire due to its underground installation. A failure of the aboveground piping could occur causing an explosion or fire. The new fuel system installation is designed to provide more protection with installation of weld steel piping. A release or spill of diesel fuel as part of unloading fuel from the tank truck to the UST is possible due to human error. Various safety measures will be installed to help limit the potential of a release or spill as part of unloading operations including equipment, overfill monitoring, high level audio alarm and acknowledgement button, and signage with various unloading operations requirements and procedures posted at the UST. For the removal and closure of the existing UST, various procedures and operations will be used to limit the potential of an explosion or fire including inerting the tank, monitoring air space for combustible gases, and specific procedures for removing the tank.

The existing UST and fuel piping system are deemed by PEPAC to be out of date and aging equipment. Currently, if any of the three hypothetical accident scenarios posed in the paragraph above were to occur, diesel fuel would be released directly to the environment via the groundwater and/or soil.

Discussion of Alternatives

Proposed Action

The UST system, piping network, and generator equipment proposed by PEPAC to replace the existing system includes environmental safeguards to help minimize the potential release or

spill to the environment. These safeguards include a double-walled construction, automatic leak detection, and secondary containment for aboveground piping and equipment. The inclusion of these safeguards helps provide a positive effect to the site and will reduce the potential for releases and spills of dangerous substances to the human and natural environment.

Additionally, to help minimize risks to safety and human health, construction activities would be performed using qualified personnel trained in the proper use of the appropriate equipment including appropriate safety precautions; additionally, activities would be conducted in a safe manner in accordance with the standards specified in Occupational Safety and Health Act (OSHA) regulations.

No Action Alternative

Under the No Action Alternative, the safety concerns associated with construction activities would be limited. The hazardous material leak detection and prevention features of the Proposed Action would not be installed. The existing UST and piping systems would remain in place, increasing the potential for a release or spill of hazardous materials to the human and natural environment.

3.5 Historic and Cultural Resources

In addition to review under NEPA, consideration of effects to historic properties is mandated under Section 106 of the National Historic Preservation Act (NHPA), as amended, and implemented by 36 CFR Part 800. Requirements include identification of significant historic properties that may be affected by the Proposed Action. Historic properties are defined as archeological sites, standing structures, or other historic resources listed in or eligible for listing in the National Register of Historic Places (NRHP) (36 CFR 60.4).

As defined in 36 CFR Part 800.16(d), the Area of Potential Effect (APE), "is the geographic area or areas within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist." The APE is defined as the 40-acre WJR Transmitter site.

3.5.1 Historic Structures

A search of historic properties was conducted for records and surveys of historic and cultural resources within the APE of the Proposed Action. A search was conducted of the Michigan State Historic Preservation website and the National Register of Historic Places website. Terracon also contacted the Riverview City Clerk Judy Bratcher about historic or cultural resources near the WJR Transmitter Site. Search results indicate there are no registered historic sites within the APE. However, the WJR Transmitter building appears to be eligible for listing as an historic structure. The zigzag art deco building was designed by Cyril Edward Schley and constructed in 1934. FEMA issued a letter to the Michigan State Historic

Preservation Office requesting concurrence of effect on historic and cultural resources within the APE of the Proposed Action. Copies of the correspondence are included in Appendix B.

Although the SHPO response letter dated September 17, 2009, indicates the WJR Transmitter Building does appears to meet the criteria for listing in the National Register of Historic Places, the SHPO response states the Proposed Action will have no adverse effect on the WJR Radio Transmitting Building. A copy of the correspondence is included in Appendix B.

Discussion of Alternatives

Proposed Action

The modifications will not adversely alter the building's Historic Register eligibility due to the modifications being below ground and only minimal changes being made to the internal components of the structure.

No Action Alternative

Under the No Action Alternative, the existing UST and piping systems would remain in place, increasing the potential for a release or spill of hazardous materials that could damage the historic building.

3.5.2 Archeological Resources

In addition to identifying historic properties that may exist in the proposed project's APE, FEMA must also determine, in consultation with the appropriate State Historic Preservation Officer (SHPO)/Tribal Historic Preservation Officer (THPO), what effect, if any, the action will have on historic properties on tribal lands. Moreover, if the project would have an adverse effect on these properties, FEMA must consult with SHPO/THPO on ways to avoid minimize, or mitigate the adverse effect.

A search of archeological properties was conducted for records and surveys within the APE of the Proposed Action. A search was conducted of the Michigan State Historic Preservation website and the National Register of Historic Places website. Terracon also contacted the Riverview City Clerk Judy Bratcher regarding archeological sites near the WJR Transmitter Site. Search results indicate there are no archeological properties within the APE. FEMA has issued a letter to the Michigan State Historic Preservation Office requesting concurrence of effect on archeological properties within the APE of the Proposed Action. Copies of the correspondence are included in Appendix B.

During the ground-disturbing activities of the Proposed Action, the excavation activity will be monitored. If any artifacts or human remains are observed or found during the excavation process, all work will cease and PEPAC will notify FEMA and the SHPO/THPO. A copy of the correspondence is included in Appendix B.

Discussion of Alternatives

Proposed Action

The UST system, piping network, and generator equipment proposed by PEPAC to replace the existing system includes environmental safeguards to help minimize the potential release or spill to the environment. During the Proposed Action, a portion of the site will be excavated for the removal of the existing UST and the installation of the new UST. Excavation activities could result in the discovery of artifacts or human remains.

No Action Alternative

Under the No Action Alternative, the existing UST system would remain and no excavation activities would be conducted.

3.5.3 Tribal Coordination and Religious Sites

On November 6, 2000, President Clinton signed EO 13175, entitled, "Consultation and Coordination with Indian Tribal Governments". The EO directs federal agencies, "to establish regular and meaningful consultation and collaboration with tribal officials in the development of Federal policies that have tribal implications, to strengthen the United States government-to-government relationships with Indian tribes, and to reduce the imposition of unfunded mandates upon Indian tribes..."

In accordance with the Native American Grave Protection and Repatriation Act, requests for evaluation of the presence or absence of known archeological and Indian Religious sites within the proposed project area were submitted to the following federally recognized tribal groups in Michigan that indicated interest in projects within Wayne County:

- Forest County Potawatomi Community
- Hannahville Indian Community
- Ottawa Tribe of Oklahoma

Terracon originally sent letters requesting comments on May 4, 2009. The following tribe responded to Terracon's letter, stating the proposed project would not have effects on interested property, or that they were unaware of religious or cultural properties in the area: Hannahville Indian Community.

FEMA sent additional letters to the tribes on August 24, 2009 stating that Terracon's original letter did not adequately state that the Proposed Action was a federally funded activity. The letter asked for a second review and comments addressed to FEMA. Copies of the tribal correspondence are included in Appendix C.

FEMA requested a response from the tribes within 30 days of the issuance of the request letters (August 24, 2009), however the 45 day response period has lapsed, and no responses from the three tribes have been received at the issuance of this report.

Discussion of Alternatives

Proposed Action

During the Proposed Action, a portion of the site will be excavated for the removal of the existing UST and the installation of the new UST. During the ground-disturbing activities of the Proposed Action, the excavation activity will be monitored. If any artifacts or human remains are observed or found during the excavation process, all work will cease and PEPAC will notify FEMA and the SHPO/THPO.

No Action Alternative

Under the No Action Alternative, the existing UST system would remain and no excavation activities would be conducted.

3.6 Comparison of Alternatives

The following table summarizes and compares the potential impacts that could result from the Proposed Action and the No Action Alternative.

Potential Impacts

Affected Environment	Proposed Action	No Action Alternative	Best Management Practices/Mitigation Measures
Geology, Seismicity, and Soils	Short-term effects during construction phase for fugitive dust and soil erosion. Petroleum contaminated soil could be discovered during excavation.	No effects	Stockpile and cover the excavated soil on-site to reduce dust. If contaminated soil is discovered, soils will undergo waste characterization (sampled for laboratory analysis) before removal to an approved disposal site certified to accept petroleum contaminated soils.

Affected Environment	Proposed Action	No Action Alternative	Best Management Practices/Mitigation Measures
Water Resources and Water Quality	Net benefit to the site watershed by upgrading UST and fuel system equipment on the site. Proposed Action would reduce the potential for hazardous contaminant release or spill to the environment.	Impacts to the site groundwater could occur from the leakage of the out of date and aging UST and fuel piping equipment. The current fuel piping system is single walled and does not have leak detection which increases the potential that impacts to the subsurface soils and groundwater at the site.	The Proposed Action will not require the use of groundwater to operate or complete.
Floodplain Management	Site is not in floodplain		
Air Quality	Short-term effects during construction phase from construction equipment emissions and dust from excavating.	No effects	Excavated soils will be covered to reduce particulate matter release to air.
Terrestrial and Aquatic Environment	No effects		
Wetlands	Wetlands are not present		
Threatened and Endangered Species	No Threatened or Endangered Species present		
Hazardous Materials	Excavation activities could expose soils and groundwater that have been impacted by petroleum wastes or materials. After completion of proposed action, risk of petroleum releases will be lessened.	Impacts to soil and groundwater could occur from the leakage of the out of date UST system.	The steps that are necessary for closure of a UST include – Owner must submit a notice 30 days prior to closure to DEQ – Storage Tank Unit (STU). STU responds to owner with instructions and forms. Tank must be removed according to the standards already put in the EA. If a release is discovered, the owner/contractor must report release to DEQ – STU within 24 hours. If no release is discovered, the owner must perform a site

Affected Environment	Proposed Action	No Action Alternative	Best Management Practices/Mitigation Measures
			assessment and submit the site assessment report to the DEQ – STU within 45 days. STU will notify the owner on any remediation activities necessary because of identified releases.
Zoning and Land Use	No effects		
Visual Resources	No effects		
Noise	Short-term effects during construction phase from construction equipment	No effects	Construction noise will be limited to normal 8 am to 5 pm work day
Public Services and Utilities	No effects		
Traffic and Circulation	Traffic on Sibley Road would increase slightly during construction phase	No effects	Construction vehicles limited to normal 8 am to 5 pm work day
Environmental Justice	No effects		
Safety and Security	Safety concerns associated with worker safety during construction. Positive effect with new leak detection safeguards will reduce the potential for release and spills of dangerous substances to the environment	Safety concerns associated with construction would be eliminated. The existing UST system would remain in place, increasing the potential for petroleum releases.	Qualified personnel trained in the proper use of the appropriate equipment including appropriate safety precautions will be used; activities would be conducted in accordance with OSHA
Historic Structures	Replacement of the existing UST system could affect the historic WJR Transmitter Building.	No construction would occur on the site and the existing UST system would remain in place.	As noted by the Michigan SHPO office, the construction activities on site will not affect the historic WJR Transmitter Building, only a small portion of the attached generator room and the grassy area containing the UST.

Affected Environment	Proposed Action	No Action Alternative	Best Management Practices/Mitigation Measures
Archeological Resources	Excavation activities could result in the discovery of artifacts or human remains.	Area would remain undisturbed.	If artifacts or human remains are found during excavation process, work will cease and PEPAC will notify FEMA and the SHPO/THPO.
Tribal and Religious Sites	Excavation activities could result in the discovery of artifacts or human remains.	Area would remain undisturbed.	If artifacts or human remains are found during excavation process, work will cease and PEPAC will notify FEMA and the SHPO/THPO.

4.0 CUMULATIVE IMPACTS

The area surrounding the WJR Transmitter Site is currently fully developed with residential and commercial properties. The Proposed Action entails the replacement and upgrade of existing fueling equipment; therefore, contributions of the Proposed Action to cumulative impacts in the area would be minimal.

5.0 PUBLIC PARTICIPATION

Pending review and approval of the Draft EA by FEMA, the Draft EA will be made available for public review at the local City of Riverview Public Library for a period of 30 days. Comments received from the public review period, if any, will be incorporated and addressed into the Final EA document. Responses to public comments, if any, and the Final EA will be posted on the FEMA website.

6.0 MITIGATION MEASURES AND PERMITS

Mitigation permits may be required if contaminated groundwater or soil is discovered during the implementation of the Proposed Action.

7.0 CONSULTATIONS AND REFERENCES

Please see Appendix B and Appendix C for copies of all correspondence conducted to date for this Draft EA.

8.0 LIST OF PREPARERS

Please see Appendix D for resumes of preparers and reviewers of this Draft EA.